SUMMARY OF THE FIELD ACTIVITIES COMMITTEE MEETING JULY 10, 2002

The Field Activities Committee of the National Environmental Laboratory Accreditation Conference (NELAC) met on Wednesday, July 10, 2002, at 1:30 p.m., Eastern Daylight Time (EDT) as part of the Eighth Annual NELAC Meeting in Tampa, Florida. Chairperson Barton Simmons of the California Environmental Protection Agency (EPA), DTSC, Hazardous Materials Laboratory led the meeting. A list of action items is given in Attachment A. A list of participants is given in Attachment B. The purpose of the meeting was to discuss items that follow.

INTRODUCTION

Dr. Simmons introduced himself as Chair and welcomed everyone to the meeting. The members of the Committee then introduced themselves.

FIELD ACTIVITIES DEFINITIONS

Dr. Simmons gave a brief background of the Field Activities Committee and why it was created. Because the chapter for field activities is so new in the Standards, a large part of their work has been to create definitions. The Field Activities Committee has been working closely with the Accreditation Process Committee to establish the difference between a fixed laboratory and a mobile laboratory, as well as to define a field measurement. The two committees agreed that the Accreditation Process Committee should be responsible for the definition of *mobile laboratory*, while the Field Activities Committee should be responsible for the definition of *field measurement.* Though each committee was responsible for their own definition, they worked together until both committees agreed upon both definitions. The *mobile laboratory* definition the Accreditation Process Committee is proposing reads:

> A portable enclosed structure with necessary and appropriate accommodation and environmental conditions as described in Chapter 5, within which testing is performed by analysis. Examples include trailers, vans, and skid mounted structures configured to house testing equipment and personnel.

The *field measurement* definition the Field Activities Committee is proposing reads:

> The determination of physical properties or chemical constituents that are measured on-site, as close as possible in time and space to the matrices being sampled/measured, following accepted test methods. This testing is performed in the fixed laboratory or outside of an enclosed structure that meets the requirements of a mobile laboratory.

A question was raised regarding whether or not the *field measurement* definition covers source testing for particulate matter. Committee members noted that standards for source emissions would not be developed until 2003.

Dr. Simmons mentioned a previous issue regarding the word "possible" in the definition of *field measurement*. It had been debated whether to use the word "possible" or "practical", as one would be preferred from a legal standpoint. Discussion arose regarding which of these words should be used, if either at all. The final definition agreed upon reads:

> The determination of physical, biological, or radiological properties; or chemical constituents; that are measured on-site, close in time and space to the matrices being sampled/measured, following accepted test methods. This testing is performed outside of a fixed laboratory or outside of an enclosed structure that meets the requirements of a mobile laboratory.

This definition, as well as the *mobile laboratory* definition, will be submitted to Chapter 1 for inclusion in the Glossary.

CHAPTER 7

Dr. Simmons gave a brief background of Chapter 7. He stated that 80-90% of the language comes directly from ISO 17025. Therefore, there will be a bit of redundancy if ISO 17025 passes. Additional language has also been added regarding water testing, based on feedback from NELAC 7.

General Sampling

A participant posed a question regarding the applicability of other chapters in the NELAC Standards to non-laboratory organizations. If this chapter is applicable for non-laboratory organizations, these organizations need to know which other chapters in the Standards are also applicable, as they might just adhere to Chapter 7 alone. Dr. Simmons mentioned that this chapter was not intended to stand alone for the use of non-laboratory organizations and that portions of Chapter 5 would also be applicable to non-laboratories. This issue will be discussed further in future teleconferences of the Committee.

Section 7.1.1

Throughout the course of the Field Activities Committee meeting, many comments were expressed regarding the use of the word "organization" and whether it refers to the non-laboratory organization accredited by NELAP or subcontractors hired for sampling. It was decided to change this language, to help clarify this issue, to read:

> **7.1.1 Scope**
>
> a) This standard specifies the general requirements for the competence to carry out sampling and field measurements. It is applicable to laboratories as well as non-laboratory organizations which directly perform environmental sampling and field measurements.

Section 7.1.2

A suggestion was made that protocols for keeping records should be added to section 7.1.2. Dr. Simmons stated that Chapter 5 already has language regarding record keeping and that a reference should just be made at the end of this section to Chapter 5. Section 7.1.2 will now read:

> **7.1.2 Technical Records**
>
> Records shall include the identity of personnel responsible for sampling and field measurement. Observations, data and calculations shall be recorded at the time they are made and shall be identifiable to the specific task (Reference Chapter 5).

Section 7.1.3

An attendee had a question about section 7.1.3.1 regarding outsourcing and whose quality system should be followed. Should the original employer's quality system be followed, or should the system of the subcontractor's be followed? The term "organization" confuses the issue, as either the employer or the subcontractor could be considered the "organization". Discussion ensued and Committee members were in agreement that the language should not be modified.

Many participants had concerns with section 7.1.3.e), which states that "the organization shall maintain records of the relevant authorization(s)… including contracted personnel. This information shall be readily available…" Participants noted that if sampling were subcontracted, the non-laboratory organization would not necessarily have those records "readily available". Committee members stated that the intent was to make it vague enough for organizations and subcontractors to specify those terms on their own. The NELAC accredited organization is responsible for those records if audited, and should have them readily available. No modifications were made to this section.

An attendee noted that section 7.1.3.1.d.3.iv neglects to mention other important supporting documents. The Committee agreed that other important documents should be included, but would not like to make a comprehensive list. Therefore, it was suggested and agreed upon to change the section to read:

> iv Personnel training shall be considered up to date if an employee training file contains a certification that technical personnel have read, understood and agreed to perform sampling and field measurements in accordance with the most recent version of the methods, ~~and~~ standard operating procedures, and other supporting documents.

Section 7.1.4

An attendee suggested changing the title as well as the last sentence in this section to read, "Accommodation of environmental conditions," rather than, "Accommodation and environmental conditions." It was agreed to make this modification to section 7.1.4 during the Committee session, but after discussion of Committee members after the meeting, they decided to remain consistent with ISO 17025 and not make any changes.

Section 7.1.5
An attendee suggested adding the phrase, "site and equipment preparation" in the list of appropriate methods and procedures in the first paragraph of section 7.1.5. The Committee made no comment.

It was suggested to strike the word "preferably" in the last sentence of section 7.1.5.a). Dr. Simmons noted that most of this language is taken directly from Chapter 5 and there is a reason why the word appears in the sentence. It is not necessarily required that the standards mentioned in this section be used, but that these are the standards preferred for use. Removing the word "preferably" would alter the meaning and require organizations to use only the specified standards mentioned.

A participant suggested not limiting section 7.1.5.a) to just the regulatory needs of the client. It was agreed to change the language to:

7.1.5 Sampling and Field Measurement Methods

a) The organization shall use methods which meet the regulatory or other needs of the client and which are appropriate for the tests it undertakes. Sampling and field measurement methods published in international, regional or national standards shall preferably be used.

Section 7.1.6
A participant suggested that this section should include supplies as well as equipment. It was agreed to change the title of this section, as well as the language in 7.1.6.b) to "Equipment and Supplies" where only the word "equipment" currently appears.

A question was raised regarding the last phrase in section 7.1.6.b). It states that sampling equipment shall be checked, but does not specify what that check should entail. Committee members agreed that this language should be more specific and that section 7.1.6.b) should read:

7.1.6 Equipment and Supplies

b) Equipment and its software used for sampling and field measurement shall be capable of achieving the accuracy required and shall comply with specifications relevant to the tests concerned. When received, sampling equipment and supplies shall be checked to establish that it meets the organization's specification requirements, complies with the relevant standard specifications, and shall be checked to ensure proper operation and/or calibrated before use.

Section 7.1.7
The changes to this section were accepted as proposed with no further modifications.

Section 7.1.8
It was suggested and agreed to change section 7.1.8.i) to read:

7.1.8 Documentation

i) reference to the sampling plan and procedures used, including field blanks, spikes, ~~and~~ duplicates, and if applicable, any confirmation samples; field instrument calibration, span, drift, and calibration standards; sampling system bias and response time; and field test standards and reagents as required by the standard/test method.

Field Measurement (Water)
High priorities for field measurements were discussed at the last Annual and Interim meetings, in which standards for water were suggested to be developed. The Committee has therefore created section 7.2, which addresses the field measurement standard for water.

Many suggestions were made to section 7.2, which resulted in the following modifications:

7.2 FIELD MEASUREMENT STANDARD (WATER)

~~7.2.1 Field Measurement is done by an accredited laboratory or other accredited organization, e.g., an engineering consulting firm. Field Measurement can be, but is not limited to being:~~

Field Measurement is done by an accredited laboratory or other accredited organization, e.g., an engineering consulting firm. Field Measurement can be, but is not limited to being:

~~b)~~a) Testing outside of a mobile laboratory, ~~Performed in an open field outside of an enclosed structure,~~ e.g. testing using self-powered instruments either hand-held or contained in personal backpacks, suitcases or other containers.

~~c)~~b) On-line monitoring that may include a fully enclosed structure with electrical power and an environmental control system critical to the protection of the instruments/analyzers and computers. Generally these units are configured to operate in the same location for a period of one day to several weeks.

~~d)~~c) Ambient air or NPDES discharge monitoring/sampling systems that collect and/or record data with electrically- operated instruments, usually contained in an environmental enclosure. These field measurement systems normally have a testing probe continuously exposed to the sampling matrix or medium being tested.

~~e)~~d) Measurements of:

1) Hydrogen ion (pH)
2) Dissolved Oxygen (DO)
3) Temperature
4) Total Chlorine Residual
5) Sulfite
6) Turbidity
7) Conductivity
8) Gaseous analytes
9) Secchi Transparency

~~f)~~e) Measurements from instruments/tests that provide nearly instantaneous results:

1) Electrometric tests
2) Colorimetric tests
3) Titrimetric tests
4) Gas Chromatography tests
5) UV, Non-dispersive Infrared, or Fluorescence tests

~~g)~~f) Measurements of any parameter where prescribing directives/methods indicate "immediate analysis" (no holding time) is required.

Appendix A – REFERENCES
ISO/IEC 17025:1999(E), "General Requirements for the Competence of Testing and Calibration Laboratories," 1999.

ADJOURNMENT

Dr. Simmons thanked everyone for attending and adjourned the meeting, as there was no further business to discuss.

ATTACHMENT A

ACTION ITEMS
FIELD ACTIVITIES COMMITTEE MEETING
JULY 10, 2002

Item No.	Date Proposed	Action	Date to be Completed
1	7/10/02	Draft a checklist as well as language for Chapter 7 regarding which sections in Chapter 5 are applicable to non-laboratory organizations.	Open
2	7/10/02	Review the OAQPS document for possible incorporation of sections into Chapter 7.	Open
3	7/10/02	Specifically look at section 5.5.4.2.1 for inclusion in to Chapter 7 regarding section 7.1.5.	Open
4	7/10/02	Review disposal/handling of waste in Chapter 5 to include in Chapter 7.	Open
5	7/10/02	Look into the possibility of just referencing Chapter 5 rather than duplicating it in Chapter 7. Thus, if Chapter 5 changes, Chapter 7 is concurrent.	Open
6	7/10/02	The Committee will review language for immunoassays, which are not currently covered in Chapter 7.	Open
7	7/10/02	Draft definitions for confirmation and split samples for the glossary.	Open

ATTACHMENT B

LIST OF PARTICIPANTS
FIELD ACTIVITIES COMMITTEE MEETING
JULY 10, 2002

Barton Simmons Chairperson	California Department of Toxic Substances Control	T: (510) 540-3112 F: (510) 540-2305 E: bsimmons@dtsc.ca.gov
Russell S. Berry (Absent)	RMB Consulting & Research, Inc.	T: (919) 791-3126 F: (919) 510-5104 E: berry@rmb-consulting.com
Robert (Skip) Darley	US Navy	T: (843) 764-7337 F: (843) 764-7360 E: darleyre@navsea.navy.mil
Jim J. Davies	Louisiana Department of Environmental Quality, Laboratory Accreditation Program	T: (225) 765-0582 F: (225) 765-2408 E: james_d@deq.state.la.us
John Dege (Absent)	DuPont/CMAE	T: (302) 773-0900 F: (302) 774-1361 E: john.a.dege@usa.dupont.com
Jeff Flowers (Absent)	Flowers Chemical Laboratories, Inc.	T: (407) 339-5984 F: (407) 260-6110 E: jeff@flowerslabs.com
Edward Hartman	Hampton Roads Sanitation District	T: (757) 833-1751 F: (757) 886-0990 E: ehartman@hrsd.dst.va.us
Larry Keith (Absent)	Instant Reference Sources, Inc.	T: (770) 267-7758 F: (253) 595-7268 E: larrykeith@earthlink.net
Peter A. Law	Severn Trent Laboratories	T: (413) 572-4000 F: (413) 572-3707 E: plaw@stl-inc.com
Andrew Tintle	FL Dept. of Environmental Protection	T: (850) 921-9733 F: (850) 922-4614 E: andrew.tintle@dep.state.fl.us
Jennifer Richins (Contractor Support)	Anteon Corporation	T: (702) 731-5485 F: (702) 731-4027 E: jrichins@anteon.com